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| 10/783,948 | 02/20/2004 | Christian Boe | 4639 | 4801 |
| 21553 | 7590 | 10/06/2005 | EXAMINER | |
| FASSE PATENT ATTORNEYS, P.A. P.O. BOX 726 HAMPDEN, ME 04444-0726 | | | OKEZIE, ESTHER O | |
| | | | ART UNIT | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|-----------|------------------------------|------------------|
| <i>HC</i> | Application No. | Applicant(s) |
| | 10/783,948 | BOE ET AL. |
| | Examiner Esther O. Okezie | Art Unit 3654 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
5) Claim(s) ____ is/are allowed.
6) Claim(s) 1-3 and 5-12 is/are rejected.
7) Claim(s) 4,13 and 14 is/are objected to.
8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. ____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,3,5 are rejected under 35 U.S.C. 102(b) as being anticipated by Sonntag.
2. Re claim 1, Sonntag discloses a releasable load carrier for use in an aircraft for carrying fuel tanks, containers, gun units, or other jettisonable loads, comprising a vertical lift system (bell crank, cable 49, and lifting arm 50 lift cylindrical sleeve 40) comprising a vertical lift (sleeve 40), a number of gripper mechanisms (levers 32) secured to said vertical lift (see fig 5) for gripping a receptacle (28), a number of latch elements (grooves 38) secured to said receptacle in positions for engagement with said gripper mechanism, each gripper mechanism comprising a lifting hook (32') for engaging a respective latch element (see fig 3) and a locking pawl (36) for locking said lifting hook in the latch element engaging position, and a mechanical coupling (34) operatively interposed between said lifting hook and said locking pawl for coupling said locking pawl and said lifting hook with each other for holding said lifting hook in a latched position against forces tending to unhook said lifting hook when said vertical lift moves said receptacle, wherein said lifting hook holds said receptacle against vertical

forces, and wherein said locking pawl holds said receptacle against vertical forces (see figs 3 and 4; col. 6, lines 15-25).

3. Re claim 3, said latch elements (38) are recessed in the upper corners or edge areas of the sidewalls of the receptacle (28; see figs 3 and 4).

4. Re claim 5, the vertical lift system further comprising a stationary guide member (slots 43 and 45 in wall of lifting sleeve 40; see figs 3 and 4) mounted in a position for guiding said locking pawl (36) when said vertical lift is moving, said stationary guide member holding said locking pawl in a locked position (fig 3) when said vertical lift (lifting sleeve 40) is moving (col. 3, lines 16-43; col. 4, lines 10-30).

5. Claims 1,2,6 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown et al.

6. Re claim 1, Brown et al discloses a deck container restraint system for transporting containers (C) from one deck to another deck, comprising a vertical lift (spreader D), a number of gripper mechanisms (latch mechanisms 65) secured to said vertical lift (D) for gripping a receptacle (C), a number of latch elements (corner castings 67) secured to said receptacle in positions for engagement with said gripper mechanism, each gripper mechanism comprising a lifting hook (66) for engaging a respective latch element (see fig. 6) and a locking pawl (68) for locking said lifting hook in the latch element engaging position, and a mechanical coupling (pawl surface 69 and pawl compliment 70 on hook 66) operatively interposed between said lifting hook and said locking pawl for coupling said locking pawl and said lifting hook with each other for

holding said lifting hook in a latched position against forces tending to unhook said lifting hook when said vertical lift moves said receptacle, wherein said lifting hook holds said receptacle against vertical forces, and wherein said locking pawl holds said receptacle against vertical forces (see abstract "containers secured against side to side and vertical movement by locking devices...").

7. Re claim 2, said latch elements (corner castings 67) are secured to the sides of the receptacle (C) at upper corner or edge areas of said receptacle (fig 6).

8. Re claim 6, said mechanical coupling comprises an entraining element (pawl compliment surface 70) on said lifting hook (66) and a contact arm (pawl surface 69) for engaging said entraining element when said locking pawl is moved into a position for disengaging said lifting hook from its latch element (see fig 6 in phantom lines).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7,8,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al in view of Sonntag.

10. Re claim 7, Sonntag discloses a lift system comprising a stationary activating guide member (guide slots 43) for activating said locking pawl (36) and disengaging said lifting hook (35) from said respective latch (groove 38) via entraining element (pivot

34 transfers the movement of pawl 36 to hook end 32'). Sonntag does not disclose an entraing element as part of the lifting hook wherein said contact arm is part of the locking pawl. Brown et al discloses a lifting hook (66) with an entraining element (pawl compliment surface on lifting hook 66) and a contact arm (pawl surface 69) as part of the locking pawl (see fig 6). It would have been obvious to one of ordinary skill in the art to replace the pivoting locking pawl and lifting hook system of Sonntag with the entrained locking pawl and lifting hook system as taught by Brown et al in order to more precisely transfer the motion of the locking pawl to the lifting hook by using a ratchet or gear like system rather than a pivot.

11. Re claim 8 and 9, Sonntag discloses a lift system comprising a stationary activating guide member (guide slots 43) for activating said locking pawl (36) and disengaging said lifting hook (35) from said respective latch (groove 38) when the receptacle (28) is to be released from the gripper mechanism (32) against a biasing force (spring 65). Sonntag does not disclose biasing resets comprising springs connected to both the locking pawl and the lifting hook for exerting a biasing force for biasing the lifting hooks into a receptacle engagement position. Brown et al discloses a compression spring (71) connected to hook (66) for biasing the hook into engagement with the aperture (67a) of the container (C) and a compression spring (100) for biasing ratchet pawl (96) into locking engagement. It would have been obvious to one of ordinary skill in the art to modify the pawl and hook system of Sonntag to include springs for biasing the pawl and hook into locking engagement with the receptacle grooves (38) in order bias the hook against dropping the receptacle.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al in view of Barry. Brown et al discloses corner castings (67) within the corners of the container (C) with apertures (67a) for engagement with the "claw" of hook (66) and a biasing member including a spring (71) effective on said hook for keeping the claw of the hook engaged with the aperture (67a) of the container (C). Brown et al does not disclose the latch elements (corner castings 67) comprising a hook engagement guide ramp for the hook to ride along into a latch recess. Barry discloses a material handling system for transposting containers comprising a frame (11) including latching hooks (16) pivotally secured to the frame for engaging and holding the container (18) (col. 2, lines 60-69). The container (18) comprises a complimentary hook surface (32) with a curved back (124) resembling a ramp for the hook (16) to ride along and securely engage hook compliment (32) to lift the container (see figs 18-20). It would have been obvious to one of ordinary skill to modify the apertures of the corner castings of Brown et al to include a hook engagement guide ramp for the hook (66) to ride along during locking engagement with the container as taught by Barry in order to securely contact the container and lock the hooks.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sonntag in view of Barry. Sonntag discloses a stationary activation guide (slots 43 or 45) for rotating lifting hook (32) with its claw (32') out of latch engagement with groove (38) against a biasing force (spring 41). Sonntag does not disclose the latch elements (grooves 38) on the receptacle (280 comprising hook disengagement guide ramps,

although the grooves (38) serve as a latch recess. Barry discloses a material handling system for transporting containers comprising a frame (11) including latching hooks (16) pivotally secured to the frame for engaging and holding the container (18) (col. 2, lines 60-69). The container (18) comprises a complimentary hook surface (32) with a curved back (124) resembling a ramp for the hook (16) to ride along and securely engage hook compliment (32) to lift the container (see figs 18-20). It would have been obvious to one of ordinary skill to modify the grooves (38) of the receptacle (28) of Sonntag to include hook engagement guide ramp for the hook (32') to ride along during locking engagement with the container as taught by Barry in order to securely contact the receptacle (28) and lock the hooks.

14. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Sonntag. Sonntag does not disclose an indicia for showing vertical positions of at least one of said grippers relative to a fixed scale. It would be obvious to one of ordinary skill to the art to use a scale to indicate vertical positions of a gripper because this is well known in the art, i.e. a tension scale.

Allowable Subject Matter

Claims 4,13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 3,695,667; US 5,163,726.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Esther O. Okezie whose telephone number is (571) 272-8108. The examiner can normally be reached on Mon-Thurs 8-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine A. Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E00



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